

CUTLER (E.G.)

SOME CASES

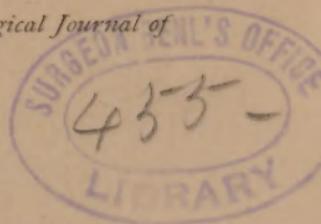
OF

DILATED STOMACH.

BY

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SOME CASES OF DILATED STOMACH.¹

BY ELBRIDGE G. CUTLER, M.D.

CASE I. M. F., thirty-five, married, housewife, born in Nova Scotia, living in Natick, had a good family history. Measles and scarlet fever in childhood. General health good till one year ago. Catamenia at seventeen, regular, painless; married at nineteen, had two children, no miscarriages. No catamenia for the past three months.

For past five years has suffered occasional dyspeptic disturbances, having distress after eating, occasional vomiting, constipation. For intervals of weeks free from symptoms. One year ago attacks became more frequent, with severe epigastric pain coming on soon after eating or independently of food, and frequent vomiting. Ten months ago vomiting of a considerable quantity of brownish material which she was told by her physician was blood. Past six months marked loss of flesh and strength (one hundred and fourteen to seventy-eight pounds), frequent attacks of pain in the epigastrium, sharp, cutting, coming on especially at night, lasting several hours, often requiring opiates for relief. Frequent vomiting of food, sometimes of dark, brownish material. Has been confined to bed for four months, and on a careful diet has been almost free from vomiting for three weeks past. No jaundice. Bowels usually constipated, at times diarrhoea. No blood observed in stools. Patient much emaciated,

¹ Read before the Boston Society for Medical Improvement, October 12, 1891.



anæmic, cachectic. Tongue pale, clean. Pulse small, compressible. Heart: soft, systolic murmur over pulmonic area. Lungs negative. Abdomen: slight epigastric tenderness most marked at tip of sternum and over upper division of the right rectus muscle; no tumor felt in any position of patient. Right rectus muscle held firmly contracted. Urine pale, acid, 1,013, no albumen, slight sediment.

Was given four ounces of milk every two hours, and four ounces of beef juice daily. No pain, distress or vomiting from food. The stomach was washed out and distended with air when the right border was found in the right mammary line, the upper border at the level of the fifth rib, the greater curvature a hand's breadth below the umbilicus, and all the intervening space gave the same tympanitic resonance (see Fig. 4).

Next day gave a test-breakfast of meat, tea, toast, at six A. M.; washing at ten A. M., using fifty cubic centimetres warm water; about three pints of thin, watery material obtained, containing fragments of undigested food and some mucus. Slight butyric odor. Hydrochloric acid in large amount found in the washing. Iodide of potash, five grains in a gelatine capsule given when the stomach was empty, showed the reaction faintly in eleven minutes. Salol gave no reaction up to four and a half hours, and given later, not in six. Undigested food was found in the stomach repeatedly at the end of eight hours. The stomach was washed out at frequent intervals, and hydrochloric acid was always found. She began to pick up in flesh and strength immediately, and lost her pain and vomiting. Very soon the residual, if I may use the term, was reduced to two instead of three pints. Full inflation after emptying the stomach showed that it nearly filled the abdomen, and three quarts of water were easily introduced without any discomfort. The

patient having improved so much as to be quite comfortable, passed out of observation.

CASE II. T. J. T., referred to me by Dr. M. H. Richardson, July 22, 1890, a plumber by trade, aged forty-six, married, born and living in Boston. Had suffered from dyspepsia for some time, together with constipation; of late there had been an exacerbation of the trouble. Vomiting had been a symptom of some duration. The vomitus was frothy and smelt like yeast. There had been constipation, pain in the upper right portion of the epigastrium after food, and a sour stomach for the past four months. Vomiting occurred daily after meals a little, and every three or four days was in large quantity. When first seen he was very thin, weighing one hundred and five pounds, usual weight being about one hundred and seventy. There had been much loss of strength, so that he was unable to work and could not ride on his cart. The skin was very dry and wrinkled, the urine was scanty, he had an ashy countenance, the mouth tasted bad, and he looked very ill and miserable. The stomach, when blown up, was found to fill the abdomen except in the right hypochondriac and epigastric regions, and it reached nearly to the pubes. When washed out it readily held three quarts. The tests showed the motor activity to be almost *nil*. The first washing brought up seeds of a preserve taken nearly three weeks before. He was regularly washed out, a diet was prescribed, Carlsbad salts, an antiseptic and nutrient enemata were used, and later, a bitter, malt and iron prescribed. He went on uninterruptedly well, the vomiting, pain and general discomfort disappearing very soon. The treatment has been pursued through the year and after the first few weeks he was able to resume his usual occupation without trouble. When seen recently he looked nearly as well as ever.

CASE III. H. F., plumber, aged thirty-nine, born in Cambridge, living in Brookline. Was seen October 27, 1890, and the following history obtained: Habits: moderate use of tobacco, very little alcohol, beer occasionally; family history, good; previous history, not very robust, but no serious illness. Bronchitis several years ago. Twelve years ago trouble with stomach similar in many respects to present attack, but he seldom vomited then, and distress came on immediately after eating.

Present illness began in August, with vomiting once a day, not very much at a time. Vomitus consisted of food and slimy stuff, sometimes yellow, sometimes color of milk. Much gas was passed by the mouth and also by the rectum, from the bowel. Seldom any sour fluid in the mouth. Very constipated, but bowels moved by drugs in small doses. Distress in stomach now is two or three hours after eating, and is frequently relieved by food. Has no feeling of distension or weight, but more an "empty feeling." Thinks he never had any sensitive point over stomach, or pain sharply localized, or pain in the back. Thinks he never vomited anything resembling blood or coffee grounds. Considerable loss of strength and has lost twenty pounds in weight in last two months. Has done some work right along, though the vomiting has persisted for past two months. He is a medium-sized, well-developed, rather thin man. Chest negative. Abdomen, when in the erect position, sunken in at epigastrum, and balloon-like below the umbilicus; left hypochondriac region more prominent than right. Tympanitic on percussion over epigastric, left hypochondriac, umbilical, and both lumbar regions, flat over rest of abdomen. Stomach-tube introduced, the organ washed out, and blown up with air, gave a tympanitic area of uniform note, on percussion, as

shown in figure. Urine pale, neutral reaction, 1,005 specific gravity, no albumen.

Salol given in five-grain capsules after a test-meal, and the urine tested every half-hour with liquor ferri chloridi, failed to show the presence of salicylic acid up to the fifth hour. Iodide of potash given in three-grain capsules and the saliva tested with nitric acid and starch, showed the first faint blue color in seventeen minutes, not deep till twenty-two minutes. A test-meal given, the stomach-tube passed, and some of the contents expressed gave a very strong acid reaction, which was found to be due to an abundance of hydrochloric acid. The stomach was washed out daily for several days, and hydrochloric acid always found. He was taught to wash himself with the aid of his wife, and after regulation of the diet, was dismissed to report in a month, the patient saying he already felt some relief after only five washings, his appetite was better, and the bowels were beginning to act naturally. He has been seen a number of times since, and has been able to do full work, but has to be washed out every third or fourth day. Has taken malt, iron, and other tonics with benefit.

CASE IV. J. G., married, aged twenty-eight, born in New York, living in Fitchburg, a cotton-weaver, has the following history, July, 1891. His father died of a paralytic shock, three brothers and sisters died of consumption, one of brain fever, his mother, one brother and one sister are living and well. Personal habits are moderately alcoholic, excessive use of tobacco. Had gonorrhœa eleven years ago, and a sore at the same time, was followed by sore throat, sores in mouth, eruption over body, and falling of the hair.

Personal history: Never sick till four years ago. First trouble was with the stomach. For the first two years he worked part of the time, but for the past two

years has not worked at all. At first had sharp pain in the epigastrium less than half an hour after eating, vomiting of food and various colored stuff followed. Relief always came from the vomiting. Stomach much distended at times. Gaseous eructations, much gas also passed with the stools. Pain in the back very severe at times. Bowels usually move without medicine, though infrequently. Four years ago weighed one hundred and thirty-nine and one-half pounds, now during past year has lost from one hundred and sixteen at the beginning of the year to one hundred and seven now. Is very nervous, but sleeps tolerably well.

Urine pale, acid, 1,007 specific gravity, albumen a very faint trace, sediment considerable, and consists of flat epithelium cells, leucocytes, mucus, and urethral gonorrhœal strings, with a few uric acid crystals.

Examination: Rather tall, poorly developed, emaciated, marked pallor. Heart and lungs negative. Abdomen has a loose, relaxed wall, sinks in at epigastrium, protrudes below in the erect position, sense of fluctuation marked over protuberant portion with a wave on percussion, succussion on palpation. Stomach evidently much enlarged. Washed out with tube, contents very foul smelling. Abundance of free hydrochloric acid in washings. Stomach held five quarts of water without discomfort, and when filled with air took up the entire abdomen (see figure). Motor activity proved to be much diminished. Peptonized milk six ounces every two hours, beef juice eight ounces daily, scraped beef at noon. Next day washed out again and a slice of dry toast added to diet-list daily. The washings of the next two days gave great relief from discomfort each time. Patient less nervous, sleeping better, complains less of all symptoms, no vomiting since the treatment began. Complexion

less muddy. Toast had to be omitted. Salicylate of sodium five grains three times a day, and Carlsbad salts, a teaspoonful once a day in eight ounces of hot water. He went on very well for a few days, when he surreptitiously took some boiled rice, which produced disturbance, and was not all removed for two days. After ten days of treatment he had become so much better that he was allowed to go home, feeling much stronger, with a better color and complexion, and feeling much elated. He was advised to continue the lavage once a day, and to use bicarbonate of soda with it, to take salicylate of sodium two grains three times a day, the diet was carefully prescribed, and he was to continue the Carlsbad and report in a month.

September 11th he was found to be immensely improved in every way, and thinking he could work a little, he was allowed to do so.

October 9th he had increased in flesh and strength markedly, and had been able to work for three weeks without much trouble.

CASE V. S. G. J., aged forty-two, farmer, born and living in Raynham, single, weighs one hundred and twenty and a half pounds, July 2, 1891. Family history negative. Personal history, always well. Present illness began February 7, 1889, when he was taken with what his physician called "dumb ague," that is, he had slight fever, chilly sensations but no marked chill, vomited everything. This continued for three months. Since then has had attacks of nausea and vomiting at irregular intervals. Vomitus contains considerable mucus, but no blood. Took an ocean trip of three weeks in June, 1891, and was much relieved thereby. Complains of considerable gas on the stomach and palpitation of the heart. Has lived on milk and Mellin's food chiefly of late. Bowels constipated. Has lost twenty-five pounds in two years. He is

short, well-built and fairly-nourished. Tongue coated, face pale, but not otherwise remarkable. Lungs and heart negative. Abdomen a little distended below umbilicus. Urine normally acid, 1,011, no albumen. Given milk with broths, and beef juice, three ounces, twice daily. Salicylate of sodium, five grains, thrice daily and sulphate of magnesia in the morning. Two days later vomited soup. Had chilly sensations all day. Quinine, two grains, three times a day. Next day much better, sat up and went out doors. A few days later occasional vomiting after a meal, and complained of considerable gas in the stomach. Diet increased by two raw beef sandwiches daily, and the sulphate of magnesia was increased. Next day stale bread was added to diet. Two days later complained of many curious sensations in various parts of the body, especially in the stomach and pharynx. He then had a test-breakfast given, and was washed out with the stomach-tube. Washing showed abundant hydrochloric acid. The capacity of the stomach was found to be moderately increased over the normal, holding two quarts readily. The motor activity was found to be diminished. The patient perceived that the washing was beneficial, and asked to have it more frequently. He soon said he did "not know that he had a stomach" in the afternoon; in the morning, however, has eructations of gas, and occasionally a little fluid, some distension and nausea. He was then taught how to use the tube himself, and was advised to wash out twice a week, to take Carlsbad salts daily or every second day, to take quinine thrice a day one grain, and was sent home to report in a month.

September 29th. Weighs one hundred and thirty-five pounds. No vomiting since discharge, no pain, no eructations. Bowels have moved daily with the salts taken every second day. The treatment was

continued, the patient being jubilant over his condition.

CASE VI. A. M. W., seen in consultation with Dr. E. S. Boland, of South Boston, June 12, 1891. His history had been one of gastric distension, pain, uneasiness, discomfort, gaseous eructations, vomiting,

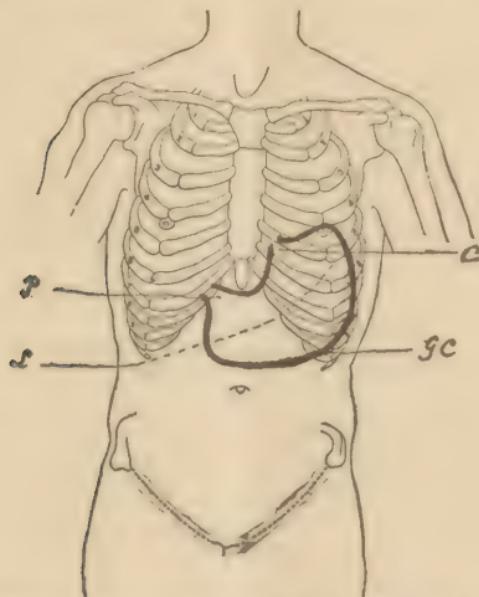


FIG 1. Position of normal stomach when distended with air. *c.* Cardiac end. *p.* Pyloric end. *g. c.* Greater curvature. *l.* Liver, lower border.

loss of flesh and strength, inability to pursue his usual occupation of a business man. His appearance was quite characteristic, the countenance was sallow, he was very emaciated, weighing but one hundred and nineteen pounds, the epigastric sinking in and bulging out lower down in the abdomen was marked. The usual methods of examination were pursued, and the

stomach was found to be markedly dilated, filling the greater part of abdomen. Regular washing was done by Dr. Boland, the diet and regimen was carefully marked out, certain necessary medicaments were given, and the patient began to improve at once. All his troubles were very much lessened, and on July 8th

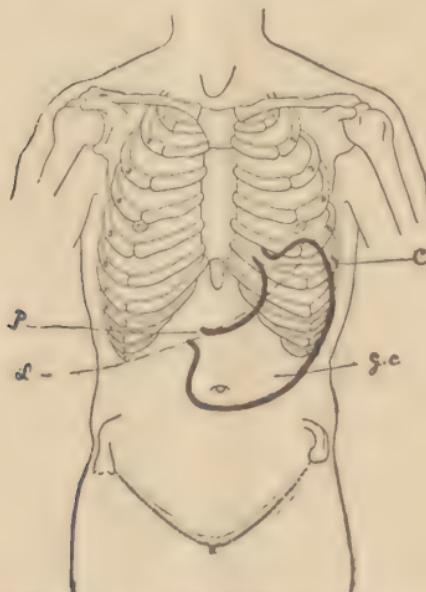


FIG. 2. The vertical position of the stomach of normal size, blown up. *c.* Cardiac end. *p.* pyloric end. *g. c.* Greater curvature. *l.* Lower border of liver.

the weight was one hundred and twenty-five and one-half pounds. Hardly any gas or wind complained of.

July 24th, he had increased to one hundred and thirty and one-half pounds and had hardly any symptoms.

August 3d, had gained two pounds more.

September 14th, the weight was one hundred and

thirty-six pounds. Had vomited three times since last visit, due to some errors of diet. Had gone in to his business, and borne it well. Liberal additions to his diet were made, and he was to report again in six weeks,—treatment meantime being continued.

A cursory glance even, at the Figures 1, 2, 3, which

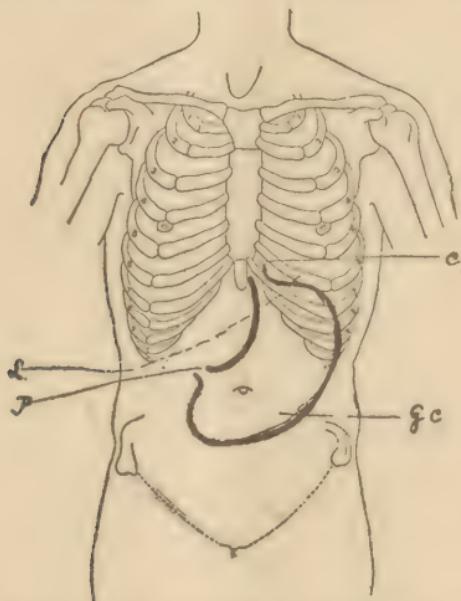


FIG. 3. Displacement downward of the normal stomach, blown up. *c.* Cardiac end. *p.* Pyloric end. *g. c.* Greater curvature. *l.* Lower border of liver.

I pass round, drawn from subjects by Rosenheim, will show that the position of the greater curvature taken alone, as is usually done, gives no full information as to the true size of the stomach. It is perfectly evident from them that the mere passage of a sound to any given point, as to a hand's breadth below the umbilicus, will not necessarily indicate an enlarged

stomach. For in both the vertical stomach, and in the one with downward displacement of the whole organ, this greater curvature reaches several finger breadths below the umbilicus. We can only consider the organ to be enlarged when the tympanitic resonance begins at the fifth rib in the anterior axillary

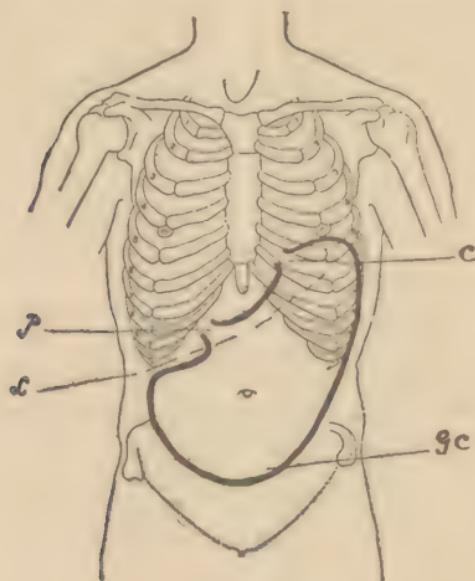


FIG. 4. Position of dilated stomach when blown up. *c*. Cardiac end. *p*. Pyloric end. *g. c.* Greater curvature. *l*. Lower border of liver.

line, and the right border of it reaches the right mammary line, and the lower border extends below the umbilicus, and all the intervening space has the same tympanitic note on percussion. Such a stomach will readily hold more than a quart and a half of fluid or more than seventeen hundred cubic centimetres. Furthermore, there must be an interference with the

motor function of the stomach if the organ be dilated and secondarily delayed absorption.

The symptoms which would lead one to consider the possibility of dilated stomach are disturbed nutrition, constipation, dyspepsia, pressure, sense of fulness, foul eructations, pain, and lastly, vomiting. Examination of the abdomen shows a relaxed wall with sinking in of the epigastrium and distension at or below the umbilicus. The skin is dry, wrinkled, and furfuraceous, the subcutaneous fat is diminished, there may or may not be tenderness in the epigastrium, the face is ash-colored, the appetite is apt to be perverted, thirst is slight. Constipation is the rule, rarely occasional diarrhoea, the tongue is frequently coated. The general discomfort is apt to be increased by taking food, so that pressure, sense of fulness, distension of the body, perhaps headache, bad taste in the mouth, acid, foul eructations and pain usually follow, which latter may be colicky, and increase till vomiting relieves it somewhat. The vomiting is apt to be frothy, yeasty in odor, occurs after each meal, and every few days is frequently very large in quantity, consisting of more or less altered food. If no contraindication exists, examination with the stomach-tube will usually enable one to establish the diagnosis.

The treatment is dietetic and mechanical. The following points in reference to the diet are to be observed:

(1) The taking of fluid is to be reduced as far as possible, as absorption from the stomach is impaired. Fluid forms the chief part of the stagnating contents, and helps increase the dilatation by its bulk and weight. Large quantities of liquid retained, help dilute the hydrochloric acid which is secreted, and thereby in many cases render peptonization difficult and facilitate the occurrence of decomposition and fer-

mentation. How much fluid is permissible depends on the habits and characteristics of the patient. In general we may consider that about one quart *per diem* should be the maximum taken by the mouth.

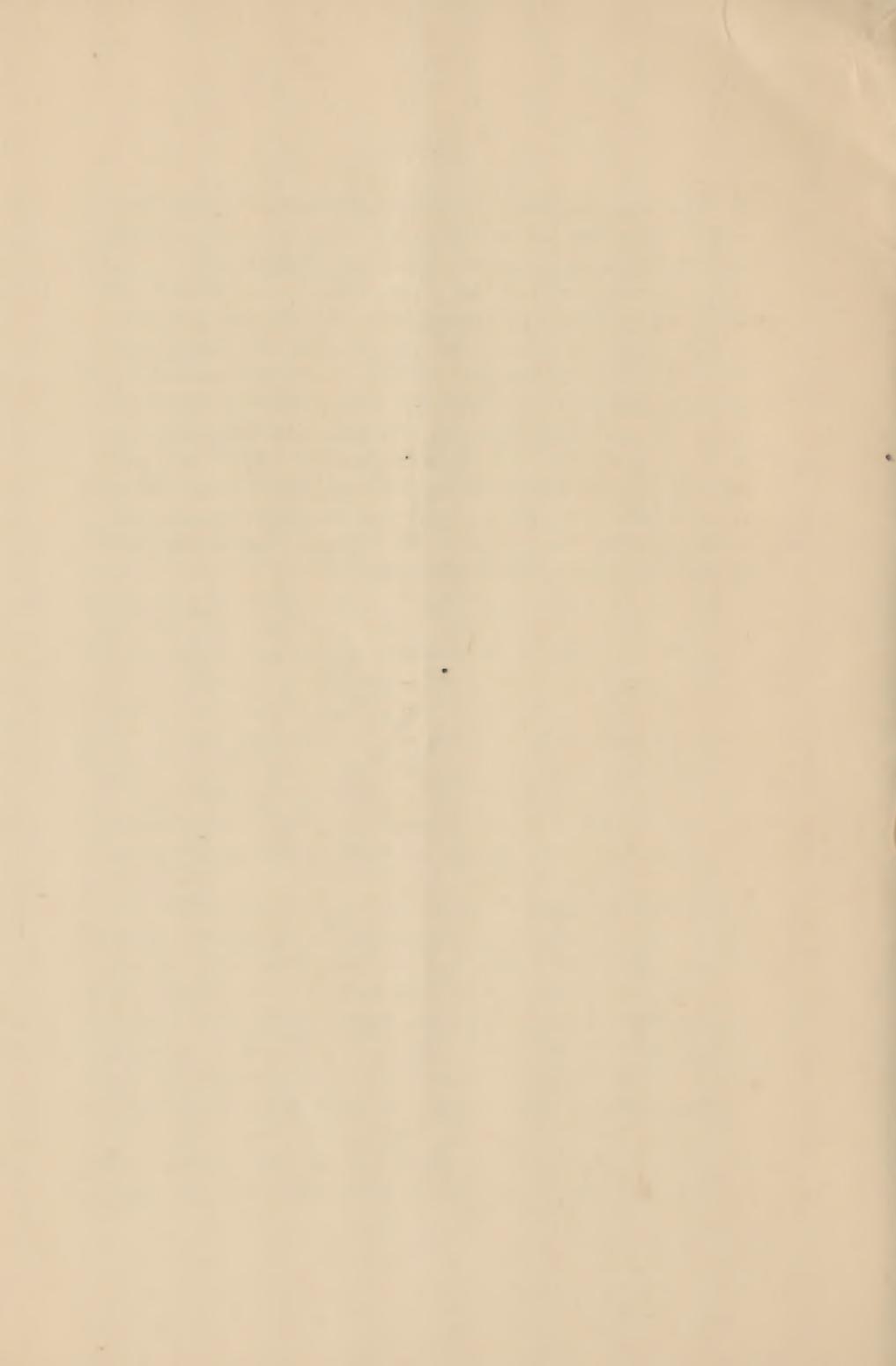
(2) Solid food in small quantities should be taken about six times a day. Regard should be paid in the selection of this food to the general condition of nutrition and to the cause which underlies the dilatation.

(3) As a rule the food and drink should be cold.

(4) The kind of food should depend on the gastric secretion. If this be normal or over-abundant, a moderate quantity of carbohydrates, rather more abundant fat, and a generous supply of albuminous substances is to be allowed. If there is diminished production of hydrochloric acid and fermentation exists, we must diminish and carefully select the carbohydrates and fat, and give a moderate quantity of albuminous food with glutenous substances and wine. In enfeebled conditions a little tea and coffee may be added. Certain of the coarser articles of food must be denied, as brown bread, potatoes, cabbage, green vegetables, pickles, salads, peas, beans, etc. Frequently nutrient enemata are advisable at regular times twice a day, or rectal injections of water to supply the fluid needed by the body.

The mechanical treatment, namely, washing out the stomach, is the most important proceeding, as it removes in great part the troubles about which the patient complains. It stops the vomiting, discomfort, and all the dyspeptic symptoms, the headache and the feeling of weakness. It rouses the appetite and restores the movements of the bowels. At first it should be done once a day only, later as the condition becomes better, every second or third day may suffice. It is immaterial so far as the diseased condition of the stomach is concerned, what part of the day be selected

for the washing out, whether morning or night, provided it be six or seven hours after a meal. It is only to be borne in mind that when done at night the patient is more apt to sleep better for it. The lavage should be made with lukewarm water till the stomach is thoroughly cleansed, when different solutions may be added to advantage. With much fermentation, antiseptics claim the first attention. When there is little or no fermentation, alkalies are substituted. Massage and electricity are frequently added to help restore the lost motor activity in suitable cases. Medicaments to control or counteract different symptoms are constantly demanded. Relatively few cases are benefited by surgical interference.



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